

## Working with Mathematics

### Something to talk about

1. All the numbers in the population table on page 270 are integers. None of these numbers is an integer:

a)  $6.5$     $-3\frac{1}{2}$     $-4.07$     $-\frac{5}{4}$

b) Which of these numbers are integers?

c)  $72$     $-2.35$     $-19$   
 $\frac{1}{2}$     $2\frac{3}{4}$     $893$     $-5662$

d) How would you describe an integer?

2. To calculate the numbers in the table, Statistics Canada used this formula:

Net change in population	=	Number of Canadians moving in	-	Number of Canadians moving out
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Use this formula to explain why some of the numbers in the table are negative and others are positive.

### Practice

1. Order the numbers from least to greatest.

a)  $-2$ ,  $0$ ,  $1$ ,  $-3$ ,  $-1$ ,  $3$ ,  $2$

b)  $-7$ ,  $0$ ,  $-3$ ,  $-13$ ,  $5$ ,  $-10$ ,  $7$

2. Add.

a)  $(-4) + (-2)$    b)  $(+3) + (-5)$

c)  $(-2) + (-6)$    d)  $(-3) + (+7)$

e)  $(-3) + (-2)$    f)  $(-4) + (+2)$

g)  $(-7) + (-8)$    h)  $(+5) + (-7)$

i)  $0 + (-9)$    j)  $(+10) + 0$

k)  $(+7) + (+8)$    l)  $(-10) + (-1)$

3. Subtract.

a)  $(-6) - (+12)$    b)  $(+2) - (+6)$

c)  $(-5) - (-2)$    d)  $(+3) - (+7)$

e)  $(-5) - (+3)$    f)  $(-2) - (+5)$

g)  $(-4) - (-8)$    h)  $(-3) - (-7)$

i)  $0 - (-6)$    j)  $(-8) - (-2)$

k)  $(-7) - 0$    l)  $0 - (+4)$

4. Multiply.

a)  $(-3)(+4)$    b)  $(+2)(-3)$

c)  $(-4)(-5)$    d)  $(-3)(-1)$

e)  $(-2)(+4)$

f)  $(-5)(+2)$

g)  $(+7)(+2)$

h)  $(0)(-7)$

i)  $(+6)(0)$

j)  $(-6)(+5)$

7. Rewrite as a product.

a)  $\frac{-25}{+5} = -5$

b)  $\frac{-5}{-1} = +5$

c)  $\frac{-10}{-5} = +2$

d)  $\frac{-6}{+3} = -2$

e)  $(+6) \div (-2) = -3$

f)  $(+24) \div (-8) = -3$

8. Divide.

a)  $\frac{+16}{+4}$

b)  $\frac{-16}{-4}$

c)  $\frac{-10}{+2}$

d)  $\frac{-18}{+3}$

e)  $(+12) \div (-3)$

f)  $(-15) \div (-3)$

g)  $(0) \div (-1)$

h)  $(+72) \div (-9)$

i)  $(-56) \div (+8)$

j)  $0 \div (+6)$

### Work together

9. Add.

a)  $(-6) + (+2)$

b)  $(+8) + (-5)$

c)  $(-3) + (-4)$

d)  $(-2) + (-5) + (+6)$

e)  $(+9) + (-3) + (-7)$

f)  $(-1) + (+5) + (-8)$

10. Read each expression as a sum of integers.

Then simplify the expression.

a)  $5 + 9 - 7$    b)  $-3 + 8 - 1$

c)  $2 - 6 - 3 + 1$    d)  $-1 - 2 + 9$

e)  $5 - 3 - 7 + 12$    f)  $-8 + 4 - 10 - 2$

11. Create a question like those in exercise 10.

Your partner calculates the answer and explains why it is correct. Take turns creating questions, calculating, and explaining.

12. Subtract.

a)  $(+4) - (+6)$    b)  $(-8) - (+4)$

c)  $(+6) - (-1)$    d)  $(-3) - (-2)$

e)  $0 - (+3)$    f)  $(+3) - (-9)$

13. Create a question like those in exercise 12.

Your partner calculates the answer and explains why it is correct. Take turns creating questions, calculating, and explaining.